STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

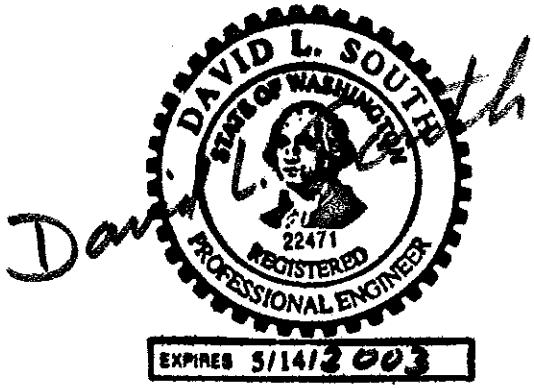
Professional Engineer's Statement
Everett Smelter Cleanup, 2000-2001

Sampling and soil remediation were carried out at the following homes within the Everett Smelter Site during the years 2000 and 2001:

Address	Owner
Muriel Jones	110 Bridgeway
Andrew Michels	235 Bridgeway
Jeanette Mempa	236 Bridgeway
Thomas, Christine & Ronnie	240 Bridgeway
Martha Watkins	244 Bridgeway
Joanne Felmer	2803 Medora Way
Terry Tavares & Linda Guy-Tavares	2811 Medora Way
Duane & Edna Rapelje	2817 Medora Way
Dave & Rene Goodrich	2818 Medora Way
Ron & Bonnie Sylvester	2830 Medora Way
Anh Black	528 Hawthorne
Steve & Sherrie Wamba	415 Legion Drive
Gary & Darlene Bunger & Sandra Kane	112 Skyline Drive
Michael Paeth	116 Skyline Drive
Randy Hall	212 Skyline Drive
Willy Pompey	215 Skyline Drive
Dorothy Larson	218 Skyline Drive
Bob & Peggy Redline	221 Skyline Drive
Michael & Sheila Crehan	222 Skyline Drive
Kurt Bertilson	230 Skyline Drive
Louise Hiller	302 Skyline Drive
Margie Hogle	303 Skyline Drive
Fred Brown	307 Skyline Drive
Jackie Robinett	308 Skyline Drive
Al Vandenbosch	316 Skyline Drive
Al Sorenson	320 Skyline Drive
Jo Newland	323 Skyline Drive
John & Christina Bull	328 Skyline Drive

Based on the results of testing and inspections, it is my opinion that the soil remediation carried out at these homes was performed in substantial compliance with the plans, specifications, and related documents governing the work.

Remediation work remaining to be done at these homes includes evaluation of crawl space data and addressing crawl spaces as necessary and carpet and duct cleaning. Some plant replacement also remains to be done and will be done this Spring.



Washington Department of Ecology
Everett Smelter Site
2000-2001 Cleanup

Details of Cleanup Activities

The Department of Ecology (Ecology) targeted the yards of 28 homes within the Everett Smelter Site for cleanup in 2000 and 2001. Cleanup activities were conducted between August 2000 and March 2001, and again between July and November, 2001. The cleanup was conducted according to the *Everett Smelter Site: Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area.*

This report describes the cleanup actions that were conducted, what arsenic-contaminated soil was not removed and where it remains for the following location:

Property Owner:	Terry Tavares and Linda Guy-Tavares
Address:	2811 Medora Way Everett, WA 98201
Snohomish County State of Washington Tax Parcel No.	# 005203-000-023-00 005203-000-024-00

This property was divided by Ecology into three Decision Units, A, B and C, as shown on the attached map, for purposes of pre-cleanup sampling and decision-making regarding the depth to which excavation was required. The following is a summary of the work done in the remediation of the property within each of the decision units.

Decision Unit: A

Results of pre-cleanup sampling indicated that no soil needed to be excavated from within this decision unit. Attachment B shows that results of composite sample analyses are below the cleanup level of 20 parts per million (ppm) and discrete sample analyses are also generally below the cleanup level. These results reflect the large amount of fill material placed in this Decision Unit during development of the property. However, the northwest portion of the Decision Unit, specifically, the area north of sampling locations A-1 and A-2 and west of B-1 was not filled as extensively as the rest of the unit and is more like the soils in Decision Unit B. Consequently, this area was excavated to 24

inches. At the owners' request, the plants in the planting beds along the fence line, and immediately adjacent to the driveway, were not removed. Within the dripline of the plants, the topsoil was scraped from the top of the root ball; beyond the dripline, soils were excavated to 24 inches. Because it was presumed the soil below 24 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed. The Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. After placing the topsoil, sod was planted.

Decision Unit: B

Results of pre-cleanup sampling indicated 24 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 24 inches, results of composite sample analyses are below the remediation level of 150 ppm and discrete analyses were below the remediation level of 500 ppm. Because the soil below 24 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches. Along the sides of the existing home, the paved driveway and the pillars supporting the deck, the excavation was sloped approximately 1:1 away from the foundations to protect the integrity of the structures. At the owners' request, a rhododendron, a wisteria and peonies along the northern fence were not removed. Within the dripline of the plants, the topsoil was scraped from the top of the root ball; beyond the dripline, soils were excavated to 24 inches. During excavation, it was found that the pipe under the driveway from the home's footing drain was crushed and plugged with soil. A field drain was installed north of the driveway, approximately between sampling locations B1 and B3 and the pipe under the driveway was replaced with Schedule 80 PVC and reconnected to the footing drain. The area under the deck and the gravel portion of the driveway were filled with clean backfill material, topped with 4 to 6 inches of crushed rock and compacted. The rest of the decision unit was filled with clean backfill material and topsoil, as described in the *Specifications for Everett Residential Soil Remediation*, and then covered with sod.

Decision Unit: C

Results of pre-cleanup sampling indicated 24 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 24 inches, results of composite sample analyses are below the remediation level of 150 ppm. Because the soil below 24 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches. The fence along the eastern property line was removed to facilitate access to and from adjoining properties. At the owners' request, two lilac bushes along the eastern property line were not removed. Within the dripline of the plants, the topsoil was scraped from the top of the root ball; beyond the dripline, soils

were excavated to 24 inches. Four-man rock was used to stabilize the slope between sample locations C-5 and C-7. The decision unit was filled with clean backfill material and topsoil, as described in the *Specifications for Everett Residential Soil Remediation*, and then covered with sod. The fence was replaced.

January 9, 2002

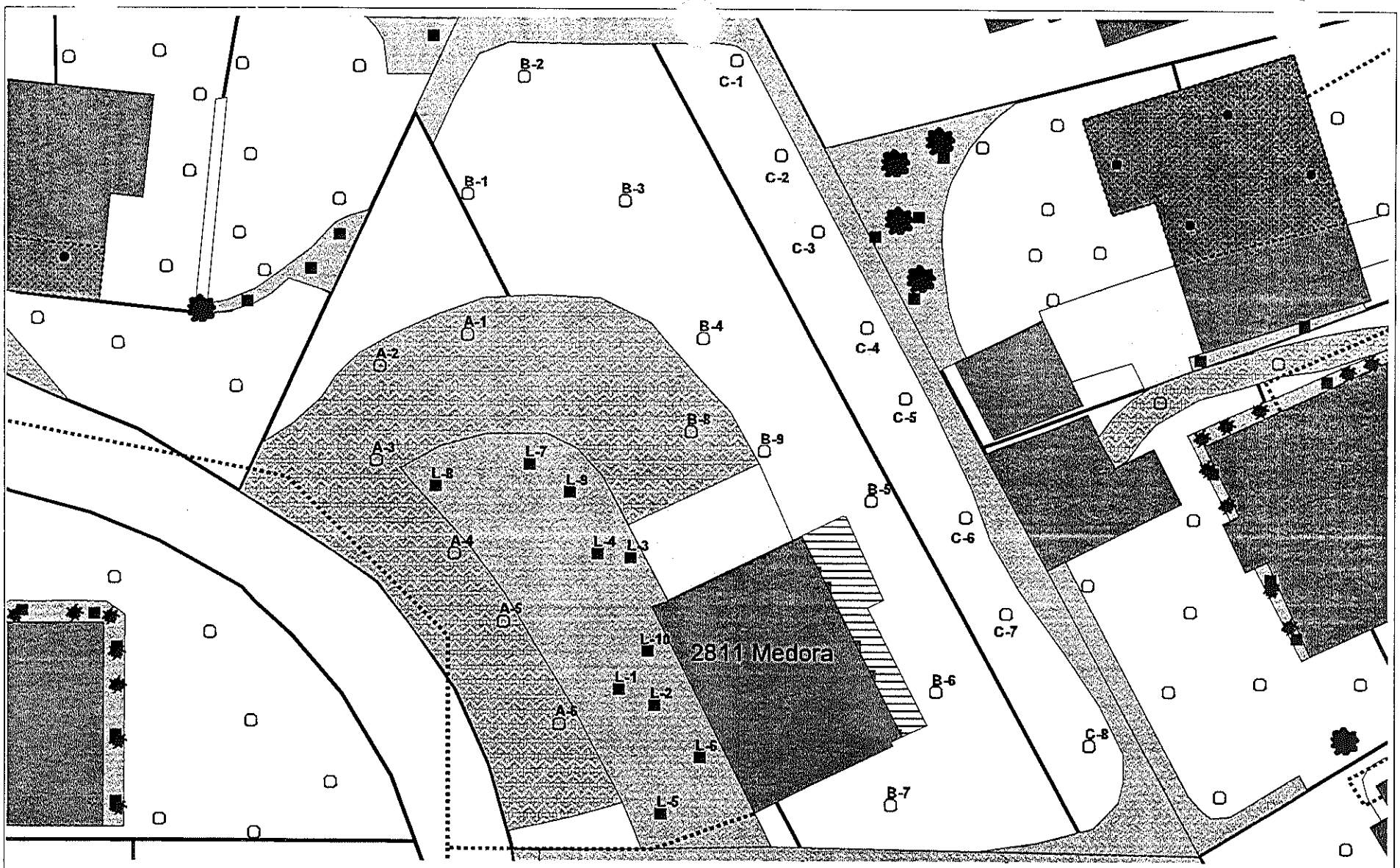
Dan Cargill
Washington Department of Ecology

DRC:dc

Attachments: A. Site Map
B. Graphs of Arsenic Concentration vs. Depth
C. Explanation of graphs

Note: If the attachments listed above do not accompany this document, copies may be obtained from Ecology. Please contact Central Records at Ecology's Northwest Regional Office (NWRO), at (425) 649-7190 for information on obtaining copies.

cc: Ecology Central Files, NWRO
Office of the Attorney General
Snohomish Health District
City of Everett Public Works
Everett Public Library
Snohomish PUD
Northeast Everett Community Organization
Northwest Everett Neighborhood Association
Asarco Information Center, Everett



2811 Medora

Everett Smelter Homesite Cleanup

Source: Snohomish Health District

■ Landscape Samples
○ DU Samples

N

Not to scale